

A METHOD AND CONFIGURABLE MODEL FOR STORING HIERARCHICAL DATA
IN A NON-HIERARCHICAL DATA REPOSITORY

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ABSTRACT

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A web-based system, method and program product are provided for adding content to a content object stored (e.g., a custom compilation or prepublished work) in a data repository as a group of hierarchically related content entities. Each noncontainer content object is preferably stored as a separate entity in the data repository. Each content entity is also stored as a row in a digital library index class as a collection of attributes and references to related content entities and containers. As the user selects desired objects for inclusion in a content object, the system arranges the objects hierarchically, e.g., into volumes, chapters and sections according to the order specified by the user. The system then creates a file object (e.g., a CBO) defining the content object that contains a list or outline of the container and noncontainer entities selected, their identifiers, order and structure. This file object is stored separately in the data repository. An aspect of the invention is to provide a configurable model for storing hierarchically related data in a relational database.

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5 CROSS REFERENCE TO RELATED APPLICATIONS

This application is related to the co-pending and commonly assigned patent applications listed below, which were filed herewith on January 21, 2000 and are all incorporated by reference herein:

- Sub A 107
- 15 **A System and Method for Creating Compilations of Content**
Serial No. ___/___,___ (Our reference Docket # STL000012US1)
- Method and System for Adding Content to a Content Object Stored in a Data Repository**
Serial No. ___/___,___ (Our reference Docket # STL000013US1)
- Method and System for Adding User-Provided Content to a Content Object Stored in a Data Repository**
Serial No. ___/___,___ (Our reference Docket # STL000014US1)
- Method and System for Moving Content in a Content Object Stored in a Data Repository**
Serial No. ___/___,___ (Our reference Docket # STL000015US1)
- Method and System for Removing Content in a Content Object Stored in a Data Repository**
Serial No. ___/___,___ (Our reference Docket # STL000016US1)
- Prerequisite Checking in a System for Creating Compilations of Content**
Serial No. ___/___,___ (Our reference Docket # STL000017US1)
- Method and System for Preventing Mutually Exclusive Content Entities Stored in a Data Repository**
Serial No. ___/___,___ (Our reference Docket # STL000018US1)
- Volume Management Method and System for a Compilation of Content**
Serial No. ___/___,___ (Our reference Docket # STL000019US1)
- Method and System for Calculating Cost of a Compilation of Content**
Serial No. ___/___,___ (Our reference Docket # STL000020US1)
- Method and System for Storing Hierarchical Content Objects in a Data Repository**
Serial No. ___/___,___ (Our reference Docket # STL000021US1)
- File Structure for Storing Content Objects in a Data Repository**
Serial No. ___/___,___ (Our reference Docket # STL000022US1)
- Providing a Functional Layer for Facilitating Creation and Manipulation of Compilations of Content**
Serial No. ___/___,___ (Our reference Docket # STL000023US1)
- A Hitmask for Querying Hierarchically Related Content Entities**
Serial No. ___/___,___ (Our reference Docket # STL990182US1)